# Complete Summary

## GUIDELINE TITLE

Screening for prostate cancer in U.S. men: ACPM position statement on preventive practice.

## BIBLIOGRAPHIC SOURCE(S)

Lim LS, Sherin K, ACPM Prevention Practice Committee. Screening for prostate cancer in U.S. men: ACPM position statement on preventive practice [erratum appears in Am J Prev Med 2008 May;34(5):454]. Am J Prev Med 2008 Feb;34(2):164-70. [60 references] PubMed

## GUIDELINE STATUS

This is the current release of the guideline.

This summary updates a previous version: Ferrini R, Woolf SH. American College of Preventive Medicine Practice Policy: screening for prostate cancer in American men. Am J Prev Med 1998 Jul;15(1):81-4.

## COMPLETE SUMMARY CONTENT



## SCOPE

### DISEASE/CONDITION(S)

Prostate cancer

### GUIDELINE CATEGORY

Prevention
Screening

### CLINICAL SPECIALTY

Family Practice
Internal Medicine
Oncology
Preventive Medicine
Urology

### INTENDED USERS

Physicians

### GUIDELINE OBJECTIVE(S)

To review the efficacy of digital rectal exam (DRE) and prostate-specific antigen (PSA) for prostate cancer screening found in the medical literature prior to July 2007

### TARGET POPULATION

American men

### INTERVENTIONS AND PRACTICES CONSIDERED

1. Screening for prostate cancer:
    - Digital rectal examination (DRE)
    - Measurement of the serum tumor marker prostate specific antigen (PSA)
2. Counseling patients on risks and benefits of screening

### MAJOR OUTCOMES CONSIDERED

- Age-adjusted incidence of prostate cancer
- Morbidity and mortality due to prostate cancer
- Sensitivity, specificity, and positive predictive values of screening tests for prostate cancer

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

### NUMBER OF SOURCE DOCUMENTS

Not stated

## METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Subjective Review

## RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

## METHODS USED TO ANALYZE THE EVIDENCE

Review

## DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

## METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

## COST ANALYSIS

The cost effectiveness of screening for prostate cancer has been difficult to calculate due to the lack of data on screening effectiveness. However, the estimated cost of treating prostate cancer in the U.S. ranged from US$1.72 billion to US $4.75 billion (1990 costs). Implementing a national screening program using prostate-specific antigen (PSA) and digital rectal examination (DRE) for men aged 50 to 69 years is estimated to cost between $17.6 billion and $25.7 billion in the first year.

## METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Guidelines/recommendations from the following groups were reviewed:

- American Urological Association
- American Cancer Society
- American Academy of Family Physicians
- Institute for Clinical Systems Improvement
- U.S. Preventive Services Task Force
- American College of Physicians

- Canadian Task Force on the Periodic Health Examination

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

The American College of Preventive Medicine (ACPM) concludes that there is currently insufficient evidence to recommend routine population screening with digital rectal examination (DRE) or prostate-specific antigen (PSA), concurring with the Unites States Preventive Services Task Force (USPSTF) recommendation. The College is in agreement with the American College of Physicians (ACP) that men should be given information about the potential benefits and harms of screening and limits of current evidence in order to make an informed decision about screening. Discussion about screening should occur annually, during the routine periodic examination, or in response to a request by the patient. The effectiveness of prostate cancer screening is questionable in elderly men with competing co-morbidities and men with life expectancies of less than 10 years. Ultimately, a man should be allowed to make his own choice about screening, in consultation with his physician, taking into consideration personal preferences and life expectancy. If the patient prefers to defer to the clinician or is unable to make a decision regarding screening, then testing should not be offered as long as the patient understands the benefits, potential limitations, and adverse effects associated with screening. Key points that should be communicated during the patient encounter regarding prostate cancer screening are listed in the table below.

Pending resolution of ongoing controversies, screening for prostate cancer among African-American men and those with a family history of prostate cancer has the potential to detect treatable forms of disease that are more likely to occur in these groups than in the general population. While the usual age for prostate cancer screening is between 50 to 70 years in average risk men, it has been suggested that those who are at high risk may benefit from earlier screening beginning at age 45, while higher-risk men (those with two or more first-degree relatives with prostate cancer before age 65) be screened at age 40. Granted that prostate cancer is more likely to be found in high-risk men, issues pertaining to tumor grade have yet to be resolved (that is, optimal grade of tumor that a screening test should detect to confer a benefit in survival or morbidity), and there is still no evidence establishing effectiveness of screening in high-risk men. In the meantime, further studies are needed to establish the efficacy and optimal age at which prostate cancer screening should be initiated in these high-risk population groups.

**Table: Benefits and Limitations of PSA Screening for Prostate Cancer: Key Points for Patient Discussion**

| Benefits of Screening | Limitations of Screening |
|---|---|
| Early detection and treatment of potentially curable stage of prostate cancer (i.e., better chances | Survival benefit from prostate cancer screening has not been demonstrated in rigorous trials. |

| | |
|---|---|
| of survival with localized disease). | |
| Reassurance of being at low risk for prostate cancer. | False positive result may lead to increased anxiety and having to experience the discomfort and possible complications associated with biopsy (e.g., pain, hematospermia/hematuria, and infection). |
| PSA can be obtained with a simple blood test and is widely available. | Prostate cancer may be slow growing and may never advance or progress to cause significant disease or death. Treatment can cause both short- and long-term side effects (e.g., pain, urinary incontinence, and impotence).<br><br>False reassurance from a normal test (false negative), leading to a delayed diagnosis of prostate cancer. |

### CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

In general, the recommendations are based on a review of the literature prior to July 2007 and recommendations from other groups.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Benefits of screening include early detection and treatment of potentially curable stage of prostate cancer (i.e., better chances of survival with localized disease) and reassurance of being at low risk of cancer.

#### Subgroups Most Likely to Benefit

Men with a first-degree relative (e.g., father, brother) with prostate cancer and African-American men are at higher risk of both developing and dying from prostate cancer.

### POTENTIAL HARMS

Both screening and treatment can be harmful:

- A false positive result may lead to increased anxiety and having to experience the discomfort and possible complications associated with biopsy (e.g., pain, hematospermia/hematuria, and infection)
- Prostate cancer may be slow growing and may never advance or progress to cause significant disease or death. Treatment can cause both short- and long-term side effects (e.g., pain, urinary incontinence, and impotence).
- Men who received false-positive prostate-specific antigen test results reported having thought and worried more about prostate cancer despite receiving a negative follow-up (prostate biopsy) result. Thus screening may cause undesirable mental health consequences.
- False reassurance from a normal test (false negative), leading to a delayed diagnosis of prostate cancer.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

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### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

1998 (revised 2008 Feb)

### GUIDELINE DEVELOPER(S)

American College of Preventive Medicine - Medical Specialty Society

## SOURCE(S) OF FUNDING

American College of Preventive Medicine

## GUIDELINE COMMITTEE

ACPM Prevention Practice Committee

## COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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## FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

No financial disclosures were reported by the authors of this paper.

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## GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the American College of Preventive Medicine (ACPM) Web site.

An erratum to this guideline has been published and is available from the American Journal of Preventive Medicine Web site.

Print copies: Available from ACPM, 1307 New York Ave, N.W., Suite 200, Washington, DC 20005-5603.

## AVAILABILITY OF COMPANION DOCUMENTS

None available

## PATIENT RESOURCES

None available

### NGC STATUS

This summary was completed by ECRI on September 1, 1998. The information was verified by the guideline developer on December 1, 1998. This NGC summary was updated by ECRI Institute on June 2, 2008. The updated information was verified by the guideline developer on June 23, 2008.

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